

Integrated Pest Management (IPM)

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INTRODUCTION

Integrated Pest Management (IPM) is a comprehensive approach to pest (including weed and disease) management. IPM stresses the prevention of pest problems through design and maintenance practices, and uses a range of pest management techniques, including biological, cultural, and mechanical, with chemical controls as a last resort. King County and the City of Seattle have undertaken a strategy to eliminate use of the most hazardous pesticides and to reduce overall pesticide use on public lands managed by the city and county. King County decreased its total use of pesticides 50 percent in the first year (2000), and achieved an additional thirty percent reduction in 2001.

STANDARDS AND GUIDELINES

King County and the City of Seattle use "Pesticide Tier Tables" developed by the [Washington Toxics Coalition](#) to prioritize the phase-out of chemicals, based on the level of threat they pose to human health and the environment.

Tier Tables with phase-out priority assignments (updated September, 2005):

- [Herbicides](#)
- [Insecticides](#)
- [Fungicides](#)
- [Other](#)

[King County Executive Order](#) on IPM requires county departments to develop specific IPM policies for landscape management activities.

King County IPM Guidelines describes how IPM practices are used in landscape management.

[Tri-County IPM Policy, Guidelines and Final Report](#) details how the coalition formed in 1999 in response to the listing of Chinook salmon and summarizes their efforts.

USAGE HISTORY AND EXPERIENCE

King County agencies strive to reduce the use of hazardous chemicals whenever they do landscape maintenance or pest control. Agency contracts also require contractors to observe the tier table guidelines.

IPM Executive Order

In King County, the 1999 Integrated Pest Management Executive Order signed by then Executive Ron Sims required all county departments to manage landscapes in accordance with the [Tri-County IPM Guidelines](#) as well as develop [agency-specific IPM policies](#) for their own operations. The King County IPM Steering Committee was established to coordinate pest and vegetation management activities across departments in a collaborative process. The [Local Hazardous Waste Management Program](#) was designated to coordinate the efforts and offer technical assistance when needed.

Natural Vegetation Management (Goats)

Goats, notoriously, will eat almost anything. While we ordinarily think of hand-pulling, herbicides, mowing, and other mechanical approaches of weed control, goats offer many advantages in weed-control.

In 2007 and 2008, King County Metro Transit hired a goat herder and 270 of his goats from Eastern Washington to assist with controlling weeds. These various sites have been difficult to maintain due to steep hillsides and uneven ground. The goats are a more efficient way to control the weeds than crews of human workers, present less risk of injury to the human staff, and eliminate the need for chemical maintenance. This service is needed twice a year to deter new plant growth. King County was so pleased with the results of two sites in 2007 that they contracted for four sites in 2008. The county's use of goats has generated a lot of interest from other jurisdictions and the community.

The goats took a few years off and now make their appearance on an annual basis and can be seen this summer in the local park and ride lots.

BID AND CONTRACT SPECIFICATIONS

Much of the landscape maintenance work done in County parks and facilities is accomplished by private contractors. Their work is governed by their contracts with the County and this section contains excerpts of contract provisions from landscape maintenance contracts. The County establishes their own contracts, but also worked closely with the State of Washington to establish various contracts:

State of Washington IPM contracts – 2014 (Expire 2022)

[00714](#) IPM CATEGORY 1 CONSULTING SERVICES

The intent of this contract is to make sure consulting firms concur with the requirements showcasing their ability to educate and assist customers in Integrated Pest Management (IPM) services. This demonstrates firms can disclose problems constructively and identify solutions.

[01314](#) IPM CATEGORY 2 IN & AROUND STRUCTURES

The intent of this contract is established for firms that have the experience, knowledge and ability to assist customers in the following Integrated Pest Management (IPM) services in and around structures. Firms must show a dedication to training, guiding and facilitating customers through a developed (IPM) plan.

[01414](#) IPM CATEGORY 3 OUTDOOR/LANDSCAPES

This is a two tier contract which displays a solicitation within a solicitation. This means pre-qualified customers will be responsible for their own evaluation of service. The Integrated Pest Management (IPM) Category 3, Outdoor-Landscape & Turf has been directly awarded to ORKIN, INC.

01514 IPM CATEGORY 4 MARINE ENVIRONMENTS

This contract says firms agree that they have the required experience, knowledge and ability to assist customers in the following IPM services for Marine Environments. Firms must show corporation with relevant laws, regulations, policies and procedures to include compliance with federal/state/local/board laws.

King County Integrated Pest Management (IPM) Control Services

Technical Specifications

Introduction:

The intent of this invitation to bid is to establish a contract for furnishing Integrated Pest Management (IPM) control services including but not limited to: planning, monitoring, trapping, pesticide application, pest removal, labor, materials and equipment to ensure control of insects, rodents and general pests in and around multiple buildings and coaches (buses). Vermin and nuisances to be controlled under this contract include but are not limited to: roaches, rats, mice, yellow-jackets, bees, silverfish, flies, ants, spiders, lice, fleas, termites, offensive odors, moistures, birds, carpenter ants, bee nest removals and mole trapping.

Integrated Pest Management (IPM) is a comprehensive approach to pest management. IPM stresses the prevention of pest problems through a wide range of techniques including: biological, cultural, and mechanical means with the use of chemical controls as a last resort.

IPM is a decision making process that utilizes regular monitoring to determine if and when pest treatments are needed to use common-sense pest management practices and to evaluate their effectiveness. IPM programs use current, comprehensive information on the life cycles of pests and their interaction with the environment. This information, in combination with available pest control methods is used to manage pests by the most economical means and with the least possible hazard to people, property and the environment. The goal of IPM is to achieve long-term, cost-effective, and environmentally sound pest control.

The work shall be performed by the Contractor in the safest possible manner. This shall include using the least toxic, most effective pesticides labeled for each particular use. Such materials shall not have a harmful effect on painted surfaces, asphalt and linoleum floor covering.

Contractor shall control insects and rodents using appropriate and authorized chemicals and methods in compliance with label instructions and all Federal, State and local regulations. To insure against accidents to humans, the Contractor shall adequately label all bait boxes, bait blocks and/or feeding stations.

All chemicals shall be used in compliance with their label instructions and restrictions. Contractor shall furnish a complete list and sample label of every chemical MSDS for each chemical product utilized.

Integrated Pest Management (IPM) Plan

- A. With-in ten (10) days of contract award, the Contractor shall have completed a comprehensive IPM plan for each location. The IPM plan shall be presented to the County Project Manager at each location for review and approval.
- B. The Contractor shall submit a price on Attachment 1 for each location to develop that locations proposed IPM plan.

- C. Locations are anticipated to need twice monthly, weekly, monthly, bi-monthly or quarterly services as indicated on the pricing sheet.
- D. Developing the IPM plan will require meeting with the County Project Manager on-site for each location. During this initial meeting, the County Project Manager will let the Contractor know what unique requirements that location has. Some unique requirements include but are not limited to: LEED, ISO 14000, unique pests, and building security.
- E. The IPM plan shall include a schedule for routine services and inspections, identification of pests, type of products/traps and chemicals to be used, two (2) or more control measures, and establishment of action threshold levels.
- F. The IPM plan can call for structural modification or repairs. However, these are not the responsibility of the Contractor. The Contractor is responsible for communicating the need for such repairs to the County Project Manager.
- G. On-going service shall include evaluating the effectiveness of current actions, record keeping for every inspection and service, and quarterly reports.

King County Landscape Maintenance Contract

General

Contractor shall provide Material Safety Data Sheets for each chemical being used on the premises.

At the conclusion of each month the Contractor shall complete a monthly work log describing work accomplished that month. Completed monthly logs shall be turned in to the County including all pesticide application records.

5.3 Maintenance Specifications

A. Lawns and Shrub Beds

1. Mowing

Lawns shall be mowed using commercial mulching type mowers. Lawns shall be mowed to a height of approximately 2 to 2 ½ inches and a neat appearance. Piles or clumps of mowed grass shall be raked and removed from the site. Grass shall be trimmed adjacent to fences, buildings, and poles as well as in any other areas where mowing is not possible or effective. The growing season for lawns is generally considered to be from March 1st through November 15th. Mowing operations shall be conducted to minimize object discharge towards bystanders or buildings at all times.

2. Edging

Lawns shall be edged along all borders and buildings including shrub beds, tree wells, curbs and walkways, for neat appearance where needed. All clippings shall be removed from lawn areas, planting beds, sidewalks and curbs.

3. Pesticide Use

No Tier 1 Pesticide products as defined by King County Executive Order may be used. Contractor shall submit all product labels for all herbicides, and insecticides proposed for use in advance to the scheduled application(s). Building Services will review the products and work with the Contractor to select substitute non-Tier 1 Pesticides where possible. No lawn fertilizers containing 2, 4-D, or related phenoxy herbicide weed control additives shall

be used. No shrub bed pre-emergent containing dichlobenil (Casaron, etc.) shall be used. No fungicides shall be used. No Dursban shall be used. Current tier tables may be obtained from the Building Services Supervisor or at the following link:

http://www.govlink.org/hazwaste/interagency/ipm/ipm_prod_eval.html#tierinreport.

4. Weed and Moss Control

Contractor shall control weeds and moss by chemical or mechanical (pulling) means. Prior to any herbicide application, Contractor shall submit labels to Building Services of proposed herbicide(s) for use in turf and shrub beds, and for approval of chemical application schedule. All beds, tree wells, lawns and other non-lawn areas shall be kept clean of Horsetails, Scotch broom, Morning Glory, Blackberry and other weeds at all times. Post-emergence spot spray, weed wick or brush applications using glyphosates (Roundup) in shrub beds, tree wells, and other non-lawn areas are permissible; follow the pesticide label. No pre-emergent shall be used in the rear or side areas of these buildings.

The fenced in areas that surround the HVAC units shall be kept clear of all invasive plant species, weeds, and vegetation by mechanical (pulling) means. No herbicides shall be used in these areas. King County Facilities Management will provide a key for these areas. No pre-emergent shall be used in the rear or side areas of these buildings.

Aeration

Contractor shall notify Building Services prior to aerating. Fertilizer application and over seeding shall be scheduled to occur at the same time as aeration. The seed mixture shall be perennial rye/fescue mix that is designed for the Pacific Northwest Conditions. Contractor shall take care and avoid all irrigation systems and sprinkler heads.

5. Fertilizing

Fertilizer applications shall be close to a 28-7-14 analyses, Shur Crop Slow Release, Cascade Green, or approved equal. The rate of fertilizer application shall be 1.0 lb. actual Nitrogen (N) per 1,000 square feet. Contractor shall coordinate application of fertilizers with Building Services to ensure adequate irrigation follows the use. One (1) application of Pacific Calcium Cal-Pril lime, or approved equal, shall be applied to all lawn areas in the spring. 8 lbs. per 1,000 square feet shall be the application rate. Contractor shall submit product labels and labeling to Building Services for all fertilizers and lime products proposed for use.

Note: Fertilizer/herbicide and fertilizer/insecticide combinations shall not be used.

6. Pruning and Trimming

All ornamental shrubs and trees (12 feet tall or less) shall be judiciously pruned in accordance with standards of good practice and in accordance with the intended function of the plant in its present location. Shrubs shall be pruned to keep building power lines clear. Major pruning shall be done annually in close coordination with Facilities Management. All debris shall be removed from the property on a daily basis and disposed of offsite. All ornamental plant material shall be trimmed in such a manner to keep walks and curbs clear. Shrubs shall not be pruned into a "box" or "ball" shape. Shrubs shall be trimmed to prevent them from growing into walks or against buildings. They shall be trimmed to a uniform height.

Pruning and trimming of the boarder hedge at the Southwest District Court/Precinct 4, Burien shall be on the front side only.

7. Watering

Lawns and bed areas shall be watered using automatic or manual irrigation systems. Clock schedules for automatic irrigation systems shall be established and monitored throughout the year by Contractor personnel according to the seasonal needs. The Contractor shall provide hoses and sprinklers as needed. Facilities Management personnel will set clocks and adjust heads as necessary.

The Contractor shall notify Building Services of any areas receiving too much or too little water.

8. Shrub Bed and Tree Mulching

The Contractor shall edge, weed by hand and lightly cultivate all shrub beds and tree rings once each year in May. New medium bark mulch shall be added to a uniform depth of at least 2 inches in all areas after weeding and cultivation. Bark mulch shall be applied no closer than 2 inches to base of tree trunks and in such a manner as to not cover ground cover plantings and small shrubs. It shall not be necessary to add bark mulch under mature plantings that are able to maintain a weed free landscape on their own. Some trenching may be needed to prevent mulch run off while irrigating in areas adjacent to walkways and parking areas.

B. Trash Removal and Debris Control

The areas for which the Contractor has responsibility shall be inspected during each visit to ensure that debris such as bottles, paper, cartons, and similar foreign matter are disposed of to keep the grounds in a neat appearing condition. Contractor shall take extra care to remove debris prior to lawn mowing to eliminate spreading of material from mower discharge. Special attention shall be given to the shrub beds at the front entrance doors to rake and remove cigarette butts and paper litter during each visit.

C. Parking Lot Areas and Driveways

Paving joints and cracks in the sidewalks, curbs, driveways, and parking lots shall be kept free of weeds and grass. All debris such as paper, bottles, leaves, etc. shall be disposed of on each visit, leaving the parking lot and driveway areas in a neat appearing condition. No pre-emergent shall be used.

D. Sidewalks and Steps

Sidewalks and exterior steps shall be kept free of weeds, grass, ivy, trash, and leaves and trimmed as required. No pre-emergent shall be used.

E. Insect and Disease Control

Any insect or disease problems shall be documented by monitoring reports prior to treatment. Contractor shall provide documentation of insect or disease problems to Building Services. If required, chemical treatments shall be chosen based on least non-target toxicity and hazard. Building Services can provide a copy of the King County Pesticide Tier List to assist with the choice of a low-toxicity pesticide. Chemical treatments shall be avoided if alternative maintenance activities can reduce pest populations.

City of Seattle IPM Contract

In 2008, the City of Seattle established a contract for Integrated Pest Management Services for pest and rodent control for all city buildings. This directs the contractor to use chemicals only as a last resort.

[RFP for Integrated Pest Management Services \(#01855\)](#) – expires in 2016

FOR MORE INFORMATION

- King County [Integrated Pest Management \(IPM\) Program](#)
- [King County EP Bulletin: Natural Vegetation Management \(goats\)](#)
- [Goats make quick work of weeds \(Seattle PI\)](#)
- [Washington Toxics Coalition](#)
- [City of Seattle – Pesticide Use Reduction](#)

VENDOR INFORMATION

King County IPM Contract:

IPM – CPA#[5559858 Eagle Pest Eliminators](#)

King County has used the following contractor for natural vegetation management

[Healing Hooves LLC \(contract with county – 3 quote\)](#)

Contact: Craig Madsen
PO Box 148
Edwall, WA 99008
(509) 990-7132

[Rent-A-Ruminant LLC](#)

Contact: [Tammy Dunakin](#)
Vashon Island, WA
206-251-1051
No minimum job size
[King County SCS certified](#)